

## **AMENDMENTS TO THE SPECIFICATION**

Please replace Paragraph [0044], [0045], [0051], and [0055] with the following paragraph rewritten in amendment format:

**[0044]** Figures 7 and 8 show the polymer offset layer 78 disposed over the cast model 50. As can be seen, modifications formed on the exterior surface 54 of the cast model 50 are transferred to the outer surface of the offset. Figure ~~[[8]]~~ 7 shows the flattened hinge accepting portions 60 as well as the bore defined at the knee joint rotation axis 52.

**[0045]** Figure 9 depicts the fixation of a hinge jig 82 into the knee axis hole. The hinge jig 82 is aligned along the rotational axis 52 of the leg and is traced with a marker to form a hinge pattern outline ~~[[82]]~~ 83. Figure 10 depicts the pattern outline 82 of the hinge jig 82 about the knee hole axis. The hinge pattern outline ~~[[82]]~~ 83 is used to align flexible patterns 84, which will eventually define a three dimensional composite frame 86.

**[0051]** Figure 16 shows the initial step for producing the splash mold 90. Similar to the formation of the offset layer 78, a 1/8" sheet of polyethylene 100 is cleaned with alcohol and checked for defects. The polyethylene sheet 100 is then placed within a 400°F oven 76. Two layers of stockinet 80 are again placed over the cast mold 50. In this regard, the stockinet 80 layers are placed over the flexible patterns 84. As is best shown in Figure 16, the polyethylene sheet 100 is removed from the oven 76 after it turns clear (approximately 5 minutes) and placed over the cast model 50. The polyethylene sheet ~~[[100]]~~ 61 is sealed on the ends 102 and the bottom 104. Vacuum is applied to the cast model through the mounting tube. Excess plastic is

trimmed from the ends and the bottom of the polyethylene sheet 61. As is shown in Figure 18, the thigh portion 104 and calf portion 106 of the splash mold 90 are labeled.

**[0055]** Figure 26 depicts the application of carbon fiber starter strips 114 to the hinge area. Additionally, glass scrim ~~[[118]]~~ 124 reinforcing material is applied to the hinge area 116. Figure 27 depicts a prefabricated carbon fiber kit 118. The carbon fiber kit contains precut strips of a woven carbon fiber pre-preg material 120 and precut balsa wood core 122. The carbon fiber pre-preg material 120 is generally a very resin rich material. Preferably, having a 55% resin content is used in order to achieve a resin rich surface. The pre-preg material 120 is formed of woven carbon fiber. The fiber is preferably oriented in 90° and 60° orientations. Optionally, glass-fiber reinforced resin or KEVLAR reinforced resin can be used.